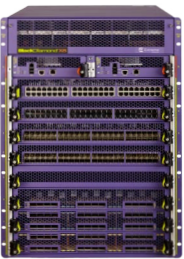# Product Pocket Guide*

ExtremeSwitching™ — Modular

PRODUCT	PRODUCT POSITIONING	KEY DIFFERENTIATORS	COMPETITIVE PRODUCT(S)
S-Series Terabit-Class Modular Switches for Edge-to-Core and Data Center	• High-performance custom CoreFlow2 ASICs for deep visibility and control • Classifies users, devices and applications; enforces access control and categorization policies for granular QoS functionality and predictable application performance • Flexible architecture allows deployment from the network edge to core and data center, reducing deployment and maintenance costs and simplifying management	• Multi-user authentication and policy at scale • Programmable dataplane for future protocol support • Application policy support • Network Address Translation and server load balancing at scale (NAT and LSNAT) • GRE tunneling • Unsampled NetFlow data on every port for complete visibility • MACSEC link encryption • VXLAN Gateway	• Cisco Nexus 7000 • Cisco Catalyst 6500, 6800, 4500 • Juniper EX8200/9200 • Brocade FSX 800/1600, VDX 8770 • Dell C7004/7008/9000
X8 Cloud Data Center, High Performance Computing, Internet Exchange Point	• High density/performance data center core/EoR, HPC interconnect fabric, campus backbone, or IXP edge/core switch • Supports 1/10GE, 40GE and 100GE interfaces • 20.48 Tbs capacity, 11.4B pps throughput • Low-latency applications with 2.3uSec latency across fabric	• Tier 4 data center class availability with 1+1 control, N+1 fabrics, N+N power • Lower TCO with only 5.6W/10G port power consumption • MLAG, limited ISSU and EAPS/ERPS support (~50ms failover) • Unified, modular XOS operating system • MPLS and DCBx support	• Cisco Nexus 7000/9000 • Arista 7500X • Juniper EX9200 • Huawei 12000 • Brocade VDX 8770, MLXe • Dell C9000
K-Series Cost-Effective Modular Switch With Premium Features for Enterprise Campus Edge-To-Small Core	• Engineered with Coreflow2 ASICs for deep visibility and control without impacting performance • High performance/capacity in a small form factor for cost optimization	• Multi-user authentication and policy at scale • Application policy support • GRE tunneling • Unsampled NetFlow data on every port for complete visibility	• Cisco Catalyst 4500 • HP 5400 • Juniper EX6200 • Brocade FSX 800 • Dell C7004

For a full product catalog, go to ExtremeNetworks.com/Products

Extreme®
Connect Beyond the Network

ExtremeSwitching — Modular (cont.)

PRODUCT	PRODUCT POSITIONING	KEY DIFFERENTIATORS	COMPETITIVE PRODUCT(S)
8000 Campus Edge/Core, Data Center or SP Aggregation Switch	• Versatile, cost-effective performance with 1GE, 10GE and 40GE interfaces • 3.8Tbps capacity with 2.8 Bpps throughput	• High-density 1GbE and 10GbE connectivity with cost-effective 40GbE • Versatile extensible backplane architecture with multiple cost/scale IO options • MLAG, limited ISSU and EAPS/ERPS support (~50ms failover) • Unified, modular XOS operating system with MPLS support	• Cisco Catalyst 4500/6500 • HP 8200zl • Juniper EX6200/8200 • Brocade FSX 800/1600, VDX 8770 • Dell C7004/7008

ExtremeSwitching — Fixed

PRODUCT	PRODUCT POSITIONING	KEY DIFFERENTIATORS	COMPETITIVE PRODUCT(S)
X870 High-Density 100Gb Leaf Spine Switch	• Purpose-built 100GE switch for high-performance enterprise and cloud data centers • Ideal for leaf-spine, as well as top-of-rack deployments • Supports 10GE, 25GE, 40GE, 50GE and 100GE interface rates	• Role-based policy support • 32 x 100 GE ports • Option for up to 128 x 10 GE or 128 x 25 GE ports enables high-density leaf aggregation • Optional DC power • Unified modular XOS operating system	• Cisco Nexus 9236C, Nexus 9300-EX • Arista 7060CX-32S • Juniper QFX5200 • Brocade SLX 9240 • Dell Z9100
X770 High-Density ToR Data Center Switch	• High-density, low latency Top of Rack (ToR) switch with 32 x 40GE interfaces • Can support up to 104 ports of 10GE	• Role-based policy support • Low latency (less than 600ns) • 1588 PTP timing support • Optional DC power • Unified, modular XOS operating system including heterogeneous stacking	• Cisco Nexus 9300 • Arista 7050Q-16, 7050QX-32 • Juniper QFX3600, QFX5100-24Q • HP 5930 • Brocade ICX 7750, VDX 6940 • Dell S6000
X670-G2 Verasatile ToR Data Center Switch	• High-performance Top of Rack switch with up to 72 x 10GE fiber interfaces • Ideal for 10GE/40GE leaf and spine architectures	• Role-based policy support • 40 GE uplinks • Industry-leading density • Low latency (less than 600ns) • IEEE 1588 Precision Timing Protocol (PTP) support • Optional DC power • Unified, modular XOS operating system including heterogeneous stacking	• Cisco Nexus 9300, 55xx • Cisco Catalyst 4500-X • Arista 7148S/SX, 7050S, 7150S-52/64, HP 5900AF • Juniper EX4550 • Brocade ICX6650, VDX6740 • Dell S4820/4048, N4000

ExtremeSwitching — Fixed (cont.)

PRODUCT	PRODUCT POSITIONING	KEY DIFFERENTIATORS	COMPETITIVE PRODUCT(S)
7100K-Series High-Density 10 Gigabit Ethernet Data Center Switch	• Top of Rack switch with 24 or 48 1GE and 10GE interfaces • Supports advanced features such as Data Center Bridging (DCB) and Virtual Switch Bonding (VSB) • Identical software features as the S-Series and K-Series modular switches (without CoreFlow2 support)	• High-density, cost-effective 10Gbase-T support • 40GE uplinks • Role Based policy support • Modular fans with reversible airflow • VSB stacking with 7100G-Series	• Cisco Nexus 3548, 3064-X, 55xx • Cisco Catalyst 4500-X • Arista 7148S/ SX, 7050S, 7150S-52/64 • HP 5900AF • Juniper EX4550 • Brocade ICX6650, VDX6740 • Dell S4048, N4000
X620 Family of 10Gb Ethernet Edge Switches	• Complete family of 10GBASE-T and SFP+ fiber models • 10Gb Ethernet 10 port and 16 port versions • Ideal for small storage and data center applications	• Compact 10 port versions for both 10GBASE-T and SFP+ fiber • Support for 2.5 GE and 5 GE multi-rate as well as 60W PoE++ • Hot swappable modular 16 port versions with configurable air flow and AC / DC power options • Flexible management options with integrated web management, Extreme Control Center, and advanced command line interface • Unified, modular XOS operating system including stacking	• Cisco Catalyst 4500X • Cisco Catalyst 3850-12XS • HP 3810 16SFP+ • Brocade ICX 7450 • Dell X4012
S-Series Standalone (SSA) Highly Intelligent Switch for Advanced Data Center or Campus Edge Applications	• Highly intelligent switch for Top of Rack or 1GE aggregation • Entry-level CoreFlow2 switch	• Modular switch capabilities in a fixed platform • Network Address Translation and server load balancing at scale (NAT and LSNAT) • GRE tunneling • Unsampled NetFlow data on every port for complete visibility	• Cisco Catalyst 4500-X • Brocade ICX 6450/7250 • Dell S3048
X480 High-Capacity, Stackable Intelligent Edge Switch	• High-capacity intelligent edge switch with increased capacity and stacking options • Up to 512K routing table sizes for Layer 3 routing • High-scalability to meet service provider requirements	• 10 and 40 GE uplinks • Designed to meet NEBS requirements • Optional DC power • EAPS/ERPS support (~50ms failover) • Unified, modular XOS operating system including heterogeneous stacking	• Cisco Catalyst 3850 • Juniper EX4300 • Brocade ICX 6610/7450

Extreme®
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ExtremeSwitching — Fixed (cont.)

PRODUCT	PRODUCT POSITIONING	KEY DIFFERENTIATORS	COMPETITIVE PRODUCT(S)
7100G-Series Versatile 1 Gigabit Ethernet Data Center and Campus Edge Switch	• Data Center Top of Rack (ToR) or advanced campus edge switch with 1 GE interfaces • Versatile chassis supports 48-port copper, 48-port fiber or 24-ports of each • Identical software features as the S-Series and K-Series modular switches (without CoreFlow2 support)	• 40GE uplinks • Role based policy support • Extremely cost-effective model supporting 24 copper and 24 fiber on one chassis • VSB stacking with 7100K-Series	• Cisco Nexus 3048 • Cisco Catalyst 3850 • Arista 7048T-A • Brocade ICX6610 • Juniper EX4300
X460-G2 Series Scalable, Versatile Intelligent Edge Switch With PoE+ Support	• Powerful and scalable, versatile intelligent edge switch with enhanced PoE+ support	• Role-based policy support • Up to 1668w of PoE+ power for up to 30w per port • Optional DC power • 1 GE / 2.5 GE multi-rate interface option (up to 16 ports) • Modular fans with reversible airflow • IEEE 1588 Precision Timing Protocol (PTP) support • Unified, modular XOS operating system including heterogeneous stacking	• Cisco Catalyst 3850, 3650, 3750-X, 3560-X • HP 3800 / Aruba 3810 • Juniper EX4300 • Brocade ICX 6610/7450
X450-G2 Versatile, Cost-Effective Edge Switch With Role-Based Policy	• Cost-effective 10/100/1000 switch with 24 or 48 interfaces • Available PoE power with up to 30 watts per port	• Role-based policy support • Modular, hot-swappable fans and available PoE power supplies • Unified, modular XOS operating system including heterogeneous stacking • Supports 4 front-mounted 1GbE or 10GbE uplinks	• Cisco Catalyst 2960-X, 2960-S • HP 2920, 5130 EI • Juniper EX3300 • Brocade ICX 6450/7250 • Dell S3048, X1500
X440-G2 Lowest Entry Cost Stackable Switch Supporting Dynamic Policy and 10GbE Uplinks	• 12, 24 and 48 port 10/100/1000 PoE+ and non-PoE switches • 24 port SFP, 24 port 100Base-FX and 12 10/100/1000 with 8 100Base-FX models • Quad 1 GbE uplinks upgradable to 10GbE on most models • Dynamic Policy support • Layer 2 and basic Layer 3 routing	• Quad 1 GbE uplinks upgradable to 10GbE • Dynamic Policy support • 0°C to 60°C on some models • Fan-less operation on 12 port models in office environments • External redundant power support for all models	• Cisco Catalyst 2960X and 2960S • HP 2920 and 5130 • Juniper EX3300/3400 • Brocade ICX 6450/7250

Extreme®
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ExtremeSwitching — Fixed (cont.)

PRODUCT	PRODUCT POSITIONING	KEY DIFFERENTIATORS	COMPETITIVE PRODUCT(S)
X430 Entry Level Access Edge Switch	• Entry-level standalone switch with 10/100/1000 interfaces • Layer 2 switching only • Supports 24 or 48 ports without PoE • Supports 8 or 24 ports with PoE	• Fixed power supply • PoE support for 8 and 24 port models only • Unified, modular XOS operating system	• Cisco 500, 300 • HP 2500 • Juniper 2200 • Brocade ICX 6430 • Dell X1000
200-Series Managed Gigabit switches for Enterprise and SMB	• Economical 1 GE Layer 2/3 access switches • Available in 12, 24 and 48-port models with and without PoE+ • Ideal for small to medium business and distributed enterprises	• Flexible management including ExtremeCloud, Web GUI, and industry-standard CLI • 1 and 10 GE uplink options • Up to 4-high stacking • Comprehensive Layer 2 features with static and dynamic RIP routing	• Cisco 300 / 500 • HP OfficeConnect 1920/1950, 2500 • Brocade ICX 6430/6450 • Dell X1000

ExtremeSwitching – Mobile Backhaul

PRODUCT	PRODUCT POSITIONING	KEY DIFFERENTIATORS	COMPETITIVE PRODUCT(S)
E4G-200 and E4G-400 Mobile Backhaul Switches for Service Providers	• Stackable cell site router with Layer 2 and 3 transport and SyncE clock synchronization for service provider mobile backhaul applications	• EAPS/ERPS support (~50ms failover) • Unified, modular XOS operating system	• Cisco MWR 2900 • Alcatel-Lucent 7705 SAR-F • Ericsson MINI-LINK SP • Huawei ATN

ExtremeWireless™

PRODUCT	PRODUCT POSITIONING	KEY DIFFERENTIATORS	COMPETITIVE PRODUCT(S)
Internet of Things (IoT) Ready Access Points: AP3912i — Wallplate AP Simplifies Installation By Reusing Existing Ethernet Cabling	• Ideal for small service areas such as residence halls, patient rooms, or conference rooms • Save on time and money by installing this into existing Ethernet wall plates	• Perfect workgroup AP with policy controlled Wi-Fi, BTLE or 802.15.4 and 3 LAN ports in a single easy to install package • 802.11ac W2 and a 3rd radio for IoT devices • PoE out to power devices such as IP Phone, IPTV, etc. • Also a 4th LAN port provides pass through connectivity from the switch to a connected device	• Cisco • HP/Aruba • Ruckus • Xirrus • Ubiquiti
IoT Ready Access Points: AP3916i — Camera AP The First HD Camera Integrated Into a Flow-Based, 802.11ac W2 AP: Perfect for Classrooms and Smart Buildings	• Perfect for classrooms and smart buildings • Save time and money by eliminating the need to run separate cable and/or power for camera • Install one product to get both secured Wi-Fi service and video surveillance for physical security	• Combines the access point with an integrated surveillance camera into a single package • Create a layer 7 policy to prioritize video traffic, at the AP • This can also be installed in a mesh to extend camera AP out to hard to reach areas where you may not want to run a cable	• Fortinet

Extreme®
 Connect Beyond the Network

ExtremeWireless (cont.)

PRODUCT	PRODUCT POSITIONING	KEY DIFFERENTIATORS	COMPETITIVE PRODUCT(S)
Indoor Access Points: AP3935i/e Ultra Performance for High-Density Deployments	• Flow based architecture for greater performance and provides application visibility when combined with ExtremeAnalytics • Support for demanding voice/video/data applications to enhance mobile worker productivity and convenience • Role-based grouping of users, devices, and applications to deliver priority, QoS, and security in accordance with business needs • Supports high-density of users and applications with 802.11ac Wave 2 technology providing 25%+ higher-effective throughput than 802.11ac Wave 1 offerings	• Optimized for high-density deployments with four dedicated single-band antenna ports per band (8 total) and quad and eight-feed antennas • No traffic bottlenecks...and transparent PoE failover for mission critical deployments • Cloud-ready for zero-touch provisioning to private or public cloud	• Cisco Aironet • Aruba • Ruckus • All competitors are expected to have Wave 2 offerings
Outdoor Access Points: AP3965i/e Ultra-Performance Industrial Grade Access Points Designed to Operate in High-Density and Harsh Environments	• Extends Wi-Fi beyond the building extending Wi-Fi access outdoors. uses the same policy and single pane of glass management as the indoor APs • Perfect for stadiums and other outdoor venues, such as warehouses, mines, and manufacturing plants • Add AP3965X is designed to support a high-density of users and applications with 802.11ac Wave 2 technology providing 25%+ higher-effective throughput than 802.11ac Wave 1 offerings	• IP67 / NEMA 6 certified for use in harsh manufacturing environments and severe weather conditions • Optimized for high-density deployments with four dedicated single-band antenna ports per band (8 total) and quad and eight-feed antennas • The AP3965i has an integrated 8-antenna array for ease-of-deployment and lower installation costs • Full range of high-performance MIMO antenna offerings for service, meshing and backhaul services	• Cisco Aironet • Aruba • Ruckus
Indoor Access Points: AP3801i, AP3805i/e, and AP3825i/e Full Range of Indoor APs Priced to Provide Wi-Fi Connectivity for Any Environment	• Adapts to customer's business needs by simultaneously supporting bridge@AP, bridge@controller, and route@controller data paths within the same SSID • Supports high-density of users, APs, and applications with optimized data paths and role-based QoS and access control • WIDS, WIPS, Spectrum analysis, QoS, and role-based access control are built into the network and not bolted-on providing visibility, security, and control	• Optimized for high-density deployments as validated in stadiums • No traffic bottlenecks - Ethernet ports designed to process Wi-Fi traffic as fast as it comes in • Independent, intelligent APs do not require controller access to provide security, RF management and spectrum analysis. Combines the scalability of a centralized design with the flexibility and performance of a distributed data plane	• Cisco Aironet • Cisco Meraki • Aerohive • Aruba • Ruckus

ExtremeWireless (cont.)

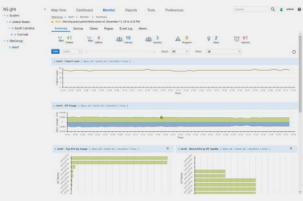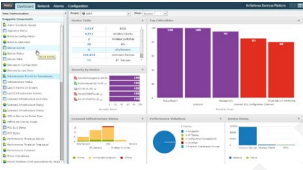| PRODUCT	PRODUCT POSITIONING	KEY DIFFERENTIATORS	COMPETITIVE PRODUCT(S)
Outdoor Access Points: AP3865e Industrial Grade Access Points Designed to Operate in Harsh Environments	• Extends Wi-Fi beyond the building extending Wi-Fi access outdoors. uses the same policy and single pane of glass management as the indoor APs • Perfect for stadiums and other outdoor venues, such as warehouses, mines, and manufacturing plants	• IP67 / NEMA 6 certified for use in harsh manufacturing environments and severe weather conditions • Optimized for high-density deployments with 3 dedicated antenna ports per band supporting triple feed and 6 feed antennas • Full range of high-performance MIMO antenna offerings for service, meshing and backhaul services	• Cisco Aironet • Cisco Meraki • Aerohive • Aruba • Ruckus
Physical and Virtual Appliances: V2110, C35, C5210 Virtual or Physical Appliances Provide Role Based Controls for Wi-Fi Users, Devices, and Apps	• Flexibility allows appliances to simultaneously control all APs, some APs or allow APs to run independent of appliance • Can be deployed as a managed service where appliances are centralized and APs. geographically distributed • Built in high availability is included with sub-one second failover to maintain voice connectivity	• Scales from small branch to large enterprise to datacenter. • Full management through the appliance or centralize management with ExtremeControl. • Optimized for data convergence (voice, video, and data) • Hardware-based encryption acceleration for up to 18Gbps of data capacity	• Cisco Aironet • Cisco Meraki • Aerohive • Aruba • Ruckus

Radar
 	
Wi-Fi Security and Spectrum Analysis. Simultaneous Wi-Fi Access and Assessment Mode or Full Time Assessment With Guardian Mode
	• Built into the Wi-Fi solution provides greater RF visibility and control than using a 3rd party solution
	• Integrated with ExtremeControl for single pane of glass Wi-Fi/ wired management
		• Flexibility allows the customer to use solution option best suited to their needs:
		  • In-service mode scans in service channel while simultaneously providing Wi-Fi access
		  • Guardian mode puts the AP in full time sensor mode to continuously scan all channels
		  • AP can be switched between Guardian and in-service mode at anytime Radar comes with ExtremeManagement
			• Cisco CleanAir
			• Cisco Spectrum Expert Wi-Fi
			• Aruba Spectrum Analyzer Module

ExtremeWireless™ WiNG

PRODUCT	PRODUCT POSITIONING	KEY DIFFERENTIATORS	COMPETITIVE PRODUCT(S)
Indoor Access Point AP 8533 802.11ac Wave 2 with MU-MIMO and Tri-Radios for High-Density and Security	• Specifically designed for high density applications, RF security and guest engagement • Tri-radios, triple sensor technology • Integrated Bluetooth and BLE for guest engagement	• 4x4:4 wave 2 technology supporting the highest capacity • Dedicated dual band RF radio for full time WIDs/WIPS and RF spectrum analysis • Scales from 1 AP, to controller-less networks of 64 APs, to networks up to 25,000 AP with NOC controllers and cloud • Internal and external antennas	• Aruba AP330 • Cisco AP1852 • Meraki MR53 • Ruckus R710 • Aerohive AP550
Indoor Access Point AP 8432 802.11ac Wave 2 with MU-MIMO for High-Density, Security, and Internet of Things (IoT)	• Specifically designed for high density applications, RF security, guest engagement and IoT • Integrated Bluetooth and BLE for guest engagement • Enables Internet of Things with PoE pass-through	• 4x4:4 wave 2 technology supporting the highest capacity • Dedicated dual band RF radio for full time WIDs/WIPS and RF spectrum analysis • Built in PoE out to connect with third party IoT devices • Scales from 1 AP, to controller-less networks of 64 APs, to networks up to 25,000 AP with NOC controllers and cloud	• Aruba AP330 • Cisco AP1852 • Meraki MR53 • Ruckus R710 • Aerohive AP550
Indoor Access Points: AP 7532, AP 7522 High-Performance, Cost-Effective 802.11ac Wave 1 Technology	• Mid-tier, high performance Wave 1 access points for cost sensitive applications • Dual radio, supporting 2.4 GHz and 5 GHz and 802.11 a/b/g/n/ac devices	• AP 7532 is 3x3:3 • AP 7522 is 2x2:2 • Scales from standalone Hotspot AP to controller-less networks of 64 APs with virtual controller technology with no AP licensing or hardware appliance • Supported by WiNG NOC controllers and cloud • Internal and external antennas	• Aruba • Cisco • Meraki • Ruckus • Aerohive
Indoor Access Point AP 7622 Purpose-Built for Massive Distributed Branch Solutions	• Price/performance to meet the needs of massive deployments of distributed branch offices. • Configurable RF and performance flexibility to tune to specific needs • Simple deployments, choice of standalone, simple autonomous networks or NOC/cloud solutions	• 802.11ac wave 1 • Configurable radios as single 2x2:2 or dual 1x1:1 • Fully integrated WiNG controller to build controller-less networks up to 25 APs or with NOC or cloud solutions for branch solution applications • Integrated BLE for guest engagement	• Aruba • Cisco • Meraki • Ruckus • Aerohive

ExtremeWireless™ WiNG

PRODUCT	PRODUCT POSITIONING	KEY DIFFERENTIATORS	COMPETITIVE PRODUCT(S)
Wall Plate Access Point AP 7602 Specifically Designed for In-Room Hospitality Applications	• Purpose built wall plate access point with integrated BLE and Ethernet ports • Slim and trim, the AP hides in plain sight for clean room aesthetics • Quick install, less than 2 minutes with secured mounting	• 802.11ac Wave 1 • Configurable radios as single 2x2:2 or dual 1x1:1 • Fully integrated WiNG controller to build controller-less networks up to 25 APs or with NOC or cloud solutions • Integrated managed Ethernet ports • Integrated BLE for guest engagement	• Ruckus H510 • Cisco AP 361 • Xirrus XR 320 • Aruba 203H
Wall Plate Access Point AP 7502 Specifically Designed for In-Room Hospitality Applications	• Purpose built wall plate access point with integrated Ethernet ports and PoE pass through • Smallest possible, design measuring 90mm x 95mm • Quick install, less than 2 minutes with secured mounting	• 802.11ac Wave 1 • Dual radios, 2.4GHz and 5 GHz • The smallest 802.11ac wall plate AP available • Fully integrated WiNG controller to build controller-less networks up to 25 APs or with NOC or cloud solutions • Integrated managed Ethernet ports • PoE pass-through to power additional device (e.g. IP phone) • Integrated BLE for guest engagement	• Ruckus H510 • Cisco AP 361 • Xirrus XR 320
Wall Plate Access Point TW 522 Solution Wireless Over VDSL	• Industry unique solution • Purpose built for hospitality in-room Wi-Fi • Allows hotels to deliver Wi-Fi over existing telephone twisted pair into the guest room • Hide in plain sight design with simple and fast deployments, less than 2 minutes per room.	• Patented line power over phone wire • Uses existing telephone (CAT3) twisted pair which is installed in all rooms already. Saving cost of pulling new CAT 5/6 cables and disrupting guest • No disruption to guest, install can be done during normal room service	• No other vendor has a VDSL solution • Competitors are either Ethernet based or offer a cable modem solution
Outdoor Access Point AP 7562 Rugged, Industrial-Grade for the Most Demanding Applications	• Not just a repackage of an indoor AP. The AP 7562 has been purpose built inside and out for outdoor applications • Specially designed outdoor IP67-RATED diecast aluminum enclosure • Built to meet industrial applications with M12 version certified for subway and railroads • Vehicle Mounted Modem option	• 802.11ac 3x3:3 for high performance outdoor applications • Extreme's patented MESHConnex™ Creating a Mesh network on both radios allows automatic failover for superior uptime and survivability. • Self-forms and self-heals into a mesh router eliminating any disruption in wireless connectivity. • EN 50155 Railway Certification	• Aruba • Cisco • Ruckus

ExtremeWireless™ WiNG

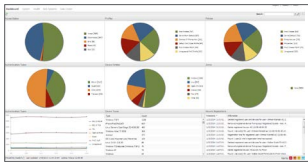| PRODUCT	PRODUCT POSITIONING	KEY DIFFERENTIATORS	COMPETITIVE PRODUCT(S)

WiNG Controllers: NX5500, NX7500, NX9600, VX9000
Unrivaled Scalability in Distributed Branch Solutions
	• WiNG enjoys unprecedented scalability and offers controllers to meet the specific needs of branch solutions
	• Hierarchical software allows uses of various size controllers, as well as controller-less branches to be managed
		• The same WiNG OS operates across all controllers, as well as on the access points themselves
		• AP support:
		  • NX5500: 512
		  • NX7500: 1048
		  • NX9600: 10,240
		  • VX9000: 25,000
		• Wireless client support scales from 16K to over 200,000
			• Aruba
			• Cisco
			• Meraki

Extreme NSight
Provides Rich Analytics for Easy Network Visualization, Monitoring, and Troubleshooting
	• Flexible and graphical WLAN management solution that makes it easy to access the wealth of powerful information
	• Keeps you on top of all the key characteristics of your network:
	  • Network analytics for trend analysis
	  • Role-Based Dashboards for various users
	  • Interactive Maps for quick problem resolution
	  • Customized reports
		• Network analytics is displayed in easy-to-read highly-graphical screens, in real time or over a time period of your choosing, for easy trend analysis
		• Create custom role-based dashboards from help desk staff to the CIO
		• Interactive maps drill down into a site or a specific access point within a site — as well as its connected client devices — all with just a few clicks.
		• Comprehensive library of pre-defined and customizable reports
			• Aruba
			• Cisco
			• Meraki

 Extreme AirDefense Industry Leading Wireless Intrusion Prevention System protects your WiFi network and assists with enforcing regulatory compliance requirements	• Wireless IPS system protects your network against over the air attacks including detecting and terminating rogue access points • It combines the information collected from the network of sensors or access points with the analytical power of an intelligent central console • Provides 24/7 network monitoring, automate security, and enable regulatory compliance	• Detects 199 wireless threats, reducing the chances of damage to your network • Advanced Forensics module captures 325 data points every minute for every identified wireless device • Administrators have the ability to rewind and analyze detailed records of wireless activity in support of forensics investigations or network performance troubleshooting • Wireless Vulnerability Assessment module uses an industry-first, patented technology to remotely test wireless security	• Aruba • Cisco • Meraki • AirDefense is the leading security solution, including the largest threat library, 199, and the most compliance reports, 5, including PCI and HIPAA

ExtremeManagement™

PRODUCT	PRODUCT POSITIONING	KEY DIFFERENTIATORS	COMPETITIVE PRODUCT(S)
(Extreme) Management Center *formerly NetSight* Single Pane of Glass Management System That Provides Wired/ Wireless Visibility and Control	• A single management system for the entire network providing consistent management across all devices • Standards based and easily supports SNMP based third party devices in addition to the Extreme family of devices • Cuts down troubleshooting time and manage any network • Easy policy enforcement network-wide for QoS, bandwidth, etc.	• Single management system for the entire network infrastructure - wired, wireless, 3rd party • Open and published interface (or API) • Future proof – Easily scales from the smallest to the largest network • Eliminates manual tasks with built in automation	• Cisco ISE • ForeScout CounterACT • Aruba ClearPass • Juniper UAC • Bradford Network Sentry

ExtremeCloud™

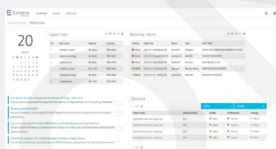| PRODUCT	PRODUCT POSITIONING	KEY DIFFERENTIATORS	COMPETITIVE PRODUCT(S)
ExtremeCloud Single Pane of Glass Wired/ Wireless Cloud-Managed Networks	• Targeted at organizations with limited IT or highly distributed environment (Remote office/ Branch office, retail, etc.) • Highly scalable, from 1 to 10,000 APs and unlimited number of switches per customer • Should NOT be positioned against on-premise solution BUT used to acquire new logos • Aligns with organizations' objective to reduce CapEx and scale OpEx with business needs	• **Application Adaptive Infrastructure** — Visibility and control. The flow-based architecture identifies and prioritizes business applications over unwanted applications for a quality of user experience • **Investment Protection** — The same hardware and firmware for both on-premise and cloud managed. Customers are not locked into a deployment model Cisco/Meraki cannot do this • **Simplicity, From Provisioning to Day-to-Day Operations** – With zero touch provisioning APs and Switches locate ExtremeCloud and are operational within minutes. Firmware updates, pushed from ExtremeCloud • **Business Aligned** — Subscription based model aligns spend with business growth • **World Class Support** — ExtremeCloud backed by industries only 100% insourced service and support	• Meraki • Aerohive

ExtremeControl™

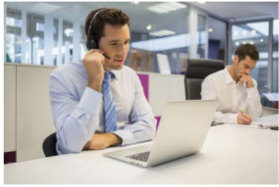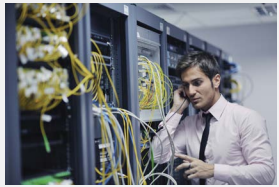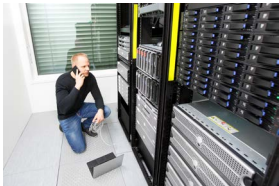| PRODUCT	PRODUCT POSITIONING	KEY DIFFERENTIATORS	COMPETITIVE PRODUCT(S)
 (Extreme) Access Control *formerly NAC and Mobile IAM* Standards-Based, Multi-Vendor Interoperable Solution for Wired and Wireless LAN and VPN Users. It Provides Business- Oriented Visibility and Control Over Individual Users and Applications in Multi-Vendor Infrastructures	• Provides user identity functionality including discovery, authentication and role based access controls • Protects corporate data by proactively preventing unauthorized users, compromised endpoints, and other vulnerable systems from accessing the network • Addresses compliance and regulatory requirements by providing comprehensive reporting on user activity that can be exported to third party reporting tools • Easily deployed in an Extreme only, mixed or non-Extreme environment	• Configuration options provide an unparalleled range of choices for fine grained network control including time of day, location, authentication types, device and OS type, and end system and user groups • Automated guest access control with sponsorship, SMS verification, pre-registration, and other options • Easy integration with third party management tools for MDM, Next Generation Firewall (NGFW), SEIM, IPS and more • Ability to link with other business processes such as LDAP and RADIUS	• Cisco ISE • ForeScout CounterACT • Aruba ClearPass • Juniper UAC • Bradford Network Sentry

ExtremeAnalytics™

 (Extreme) Application Analytics *formerly Purview* A Network-Powered Application Analytics and Optimization Solution	• Pervasive analytics across the network from datacenter to distribution - access edge with no chokepoint in the network • Integrated with Extreme Control Center providing a single management system • Adds value to the business by using application analytics to provide business intelligence analytics	• Actionable context-based knowledge about applications, users, locations and devices • Over 13,000 open and customizable fingerprints • Complements and integrates with other third party management products • Massive scalability – Works at Terabit speeds and can collect millions of flows per minute without any performance impact to the switch	• Cisco AVC/NBAR • Meraki • NAM • Sourcefire • Riverbed Cascade and Opnet • Aerohive HiveManager • Aruba AppRF

ExtremeWorks™ Managed Services

SERVICE	POSITIONING	KEY DIFFERENTIATORS	BUSINESS VALUE
 Managed Services MonitoringPLUS	• Enables better use of current IT staff • Extreme Networks' provides the phone, software and hardware support • Fills IT expertise gaps as technology accelerates	• 24x7x365 monitoring with proactive notification • Network configuration storage • Instant customer visibility to the network • Next Business Day support is included, with 4 hour and on-site options available	• Enables highly skilled IT staff to move onto more strategic projects • Saves hiring and training costs • Ensures awareness of network loads and performance • Minimizes the impact of network issues through proactive notification

ExtremeWorks™ Managed Services

SERVICE	POSITIONING	KEY DIFFERENTIATORS	BUSINESS VALUE
Managed Services ResponsePLUS *In Addition to Features of MonitoringPLUS*	• Ensures network issues are found and resolved before they create productivity issues • Helps you to make better budget and network infrastructure decisions based on real data and observations of network performance	• Accelerated problem detection and resolution of Extreme Networks supported devices, including updating configurations and software or making hardware changes • Designated Service Manager for problem resolution • Semi-annual reviews	• Proactive resolution minimizes the impact network performance issues • Faster resolution because of management of support issues • More proactive budgeting due to discussions around network improvements, scalability, and design based on real data
Professional Services	• Deployment of Bring Your Own Device (BYOD/mobility) • Site surveys and deployment of wireless services • Deployment of any Extreme Networks solutions • On-site IT staff augmentation	• Managed deployment • Comprehensive installation • Project management • Network & Security Consulting • Resident engineering services	• Maximizes IT investments by using highly trained experts to ensure faster accurate set up and configuration • Saves on IT hiring and training costs • Avoids getting IT staff "up to speed" with installation of new technologies and capabilities • Fills the gaps in IT staff needs
Maintenance Services	• Call anytime from anywhere to talk to an Extreme Networks expert • Ensure that devices are running the latest application and operating system software • Get parts when they're needed • Go to the web to log and check status on cases and find additional information	• Global presence • 24x7x365 in-house technical assistance • Software updates and upgrades • Wide variety of hardware replacement options • Flexible go to market options • Web access to solutions, knowledgebase & community • Premier Services offer additional customer engagement	• Provides choices to match customer's budget and network demands • Helps ensure network performance and health • Flexible go-to-market model enables Partner to engage as much as they desire, providing they meet program requirements • Enables your IT staff to focus on other more strategic tasks

Extreme®
Connect Beyond the Network

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